CHAPTER 1

The Year in Review and the Years Ahead

The expansion of the U.S. economy—having gathered momentum in 2003 and 2004—continued for its fourth full year in 2005. Economic growth was solid, with real gross domestic product (GDP) growing 3.1 percent during the four quarters of 2005 and 3.5 percent for the year as a whole. Near-record prices of energy and damage from several powerful hurricanes threatened to derail the expansion, but growth was well maintained in the face of these shocks and a long series of rate hikes by the Federal Reserve. Productivity growth remained well above its historical average.

This chapter reviews the economic developments of 2005 and discusses the Administration's forecast for the years ahead. The key points of this chapter are:

- Real GDP grew strongly during 2005. Most components of demand that accounted for growth in 2004 continued to do so in 2005: consumer spending, business investment in equipment and software, and exports.
- Labor markets continued to strengthen. The unemployment rate continued to decline, and employers created another 2 million jobs.
- Inflation rose substantially at mid-year, but came down by year-end reflecting the movement of energy prices. In contrast, inflation in the core consumer price index (CPI) (which excludes food and energy prices) has remained in the moderate 2-percent range, and inflation expectations for the period beyond a one-year horizon remain moderate and stable.
- The Administration's forecast calls for the economic expansion to continue in 2006, with real GDP growth close to its post-World War II average rate and the unemployment rate stable at about its current level. This is expected to continue in subsequent years.

Developments in 2005 and the Near-Term Outlook

Despite the impacts of rising energy prices and a devastating hurricane season (see Box 1-1), the U.S. economy continued to expand at a solid pace in 2005 and inflation pressures remained contained.

Consumer Spending and Saving

Consumer spending continued its strong growth in 2005, rising faster than disposable income over the past decade and a half. As a result, the personal

Box 1-1: Economic Impact of the 2005 Hurricanes

In addition to the tragic loss of life and the massive destruction of personal property, the two major hurricanes (Katrina on August 29 and Rita on September 24) damaged the productive capacity of the American economy. Hurricane Wilma (October 24) also caused sizable losses to life and property, but the damage to the economy as a whole was much less. Both Hurricane Katrina and Hurricane Rita passed through offshore areas where oil and natural gas platforms are concentrated and then struck on-shore areas where petroleum is refined and natural gas is processed. In addition to the damage to equipment and structures, the hurricanes separated at least 782,000 workers from their jobs (and displaced many more from their homes).

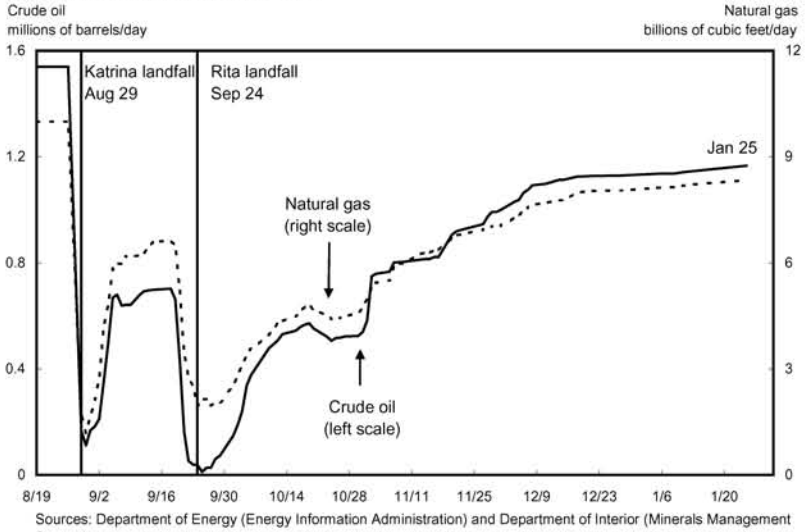
The direct damage to the capital stock and the displacement of labor probably cut real GDP growth by about 0.7 percentage point at an annual rate in the third quarter. Most of this GDP loss was the direct result of destruction of oil and natural gas operations. Although rebuilding of petroleum and natural gas operations was well under way in the fourth quarter, the continuing disruptions likely subtracted about 0.5 percentage point from the annual rate of real GDP growth in that quarter. Hurricane Katrina shut down about 1.4 million barrels per day of oil extraction and 8.8 billion cubic feet per day of natural gas production when it passed through on August 29. Those operations were well on their way to recovery when Hurricane Rita came along for a second strike on September 24, erasing the recovery efforts up to that date (see the chart below). From Katrina's approach through the Gulf of Mexico until the end of the third quarter, oil extraction was cut by an average of 1.08 million barrels per day below normal levels and by an average of 0.7 million barrels per day during the fourth quarter. Similarly, natural gas production was reduced by an average of 5.4 billion cubic feet per day (roughly 10 percent of U.S. output) from Katrina's approach through the end of the third quarter and by an average of 4.0 billion cubic feet per day in the fourth quarter. Damage to refineries cut output by an average of about 2 million barrels per day during September and forced the demand for refined petroleum products to be met by higher imports and a liquidation of inventories. Most refinery output was restored by early-November, however. (Recent energy developments are discussed further in Chapter 11.)

About 782,000 workers filed claims for unemployment insurance (UI) benefits because of the hurricanes (604,000 under the regular UI program and another 178,000 under the Disaster Unemployment Assistance program). The lost production from these workers also subtracted from real GDP growth in the third quarter (after making an allowance to avoid double counting the lost production of

Box 1-1 — *continued*

Oil and Natural Gas Production since Recent Hurricanes

Hurricanes Katrina (8/29) and Rita (9/24) shut down major amounts of crude oil and natural gas production, and the damage took a long time to repair.



Sources: Department of Energy (Energy Information Administration) and Department of Interior (Minerals Management Service).

workers in the petroleum and natural gas industries noted earlier). Data from the Current Population Survey indicate the unemployment rate among evacuees was about 12 percent by year end.

According to a Red Cross damage assessment, the three hurricanes destroyed an estimated 213,000 housing units; most of this damage was done by Katrina. Furthermore, 169,000 units suffered major damage (enough to make them uninhabitable), 220,000 had minor damage, and another 235,000 had extremely minor damage. The Bureau of Economic Analysis estimates the loss of residential capital stock at about $67 billion—about $37 billion of which was insured. The insured structures are likely to be rebuilt (although not necessarily in the same location), and many of the uninsured structures may be rebuilt as well. The pace of reconstruction is uncertain but is likely to take place over a period of three years or so.

In the aftermath of the hurricanes, the President and Congress worked together to provide disaster relief for the affected areas. Two emergency spending bills provided for $62 billion of disaster relief, including transfer payments to persons and businesses in the affected areas, direct government purchases of goods and services, and grants to State and local governments. These bills also included funding for

Box 1-1 — *continued*

the Defense Department and the Corps of Engineers to rebuild military facilities and levees in New Orleans and the Gulf Coast. Additional legislation authorized a reallocation of about $6 billion from other programs to disaster relief, established $17 billion of additional borrowing authority for Federal flood insurance programs, and provided about $15 billion of tax relief for the affected areas.

In the fourth quarter, the Federal disaster spending together with private rebuilding may have partially offset the still-negative effects of petroleum and natural gas operations. By the first quarter of 2006, these post-hurricane effects are expected to combine to produce a clearly positive contribution to real GDP growth.

saving rate fell to a postwar low this year, turning negative in the second quarter and remaining negative through the fourth quarter. A number of factors contributed to growth in consumer spending in 2005; the most important was the increase in energy prices including the transitory post-Katrina surge. Other factors with sizable effects in particular quarters were motor vehicle incentive programs and the loss of rental income from the hurricanes. Rising household net worth during the late 1990s and again over the past two years has provided a more-persistent boost to consumer outlays relative to after-tax income.

Energy Expenditures

Consumer budgets continued to be stretched by higher energy prices in 2005. Consumer energy prices increased about 21 percent during the four quarters of 2005, following an 18-percent increase in 2004 (as measured by the consumption price index in the national income and product accounts). Real consumption of energy was fairly flat in 2005, but because of the higher prices, the share of household income allocated to energy purchases increased sharply. Spending on energy goods and services jumped from 4.2 percent of disposable personal income in 2002 to about 6 percent in October and November of 2005 as the average household's energy budget rose by about $700 during 2005.

Light Vehicle Expenditures

While annual average sales of cars and light trucks have been remarkably stable over the past six years, much of the quarter-to-quarter volatility in consumer spending generally comes from motor vehicle purchases. Quarter-to-quarter variability in light vehicle sales was particularly evident in 2005. In

July, when General Motors, Ford, and Chrysler each introduced incentive programs on 2005 models, the sales of light vehicles peaked at 20.7 million units at an annual rate. However, motor vehicle sales dropped off in the fourth quarter to 15.8 million units at an annual rate with the removal of the incentive programs. Light vehicle sales for the year as a whole averaged 16.9 million units, however, almost identical to the average pace during the 2000-to-2004 period.

Personal and National Saving

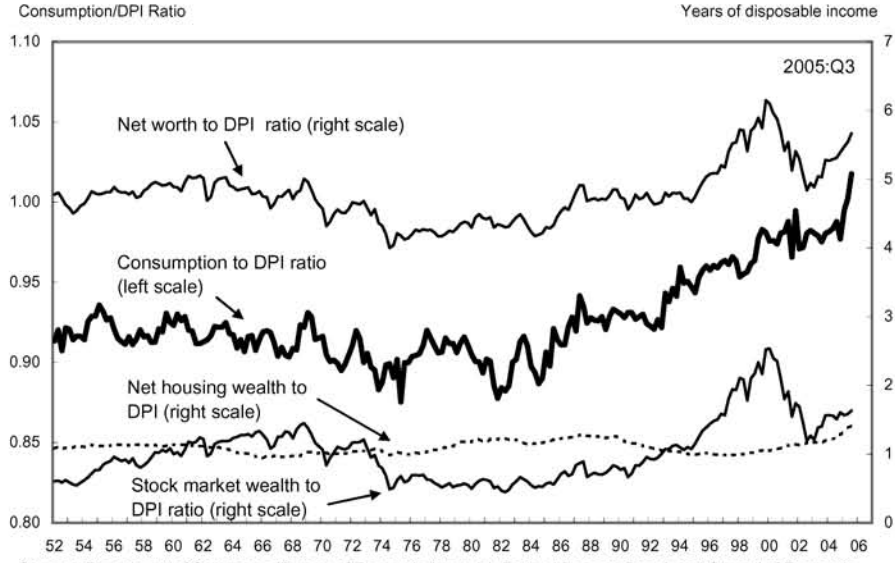
Meanwhile, real purchases outside of energy and motor vehicles grew at their long-standing trend of about 3½-percent growth per year. With energy prices up and other consumption on an unaltered trajectory, most of the funds for these higher-cost energy purchases came from reducing saving. The personal saving rate, which had been generally falling during the preceding 15 years, fell to -0.5 percent for 2005.

Personal saving is only one part of national saving. The personal saving rate does not include corporate saving in the form of retained earnings; but corporate saving adds to the wealth of corporate shareholders and supplies funds for investment. Net private saving, which includes corporate saving as well as household saving, was 4.3 percent of net national income in the first half of 2005, down from 7.4 percent in the 1990s. A still broader measure of saving, national saving, subtracts dissaving by Federal, state, and local governments (in the form of government budget deficits) from private (public plus corporate) saving. The national saving rate was 1.7 percent in the first half of 2005. (Personal and national saving are discussed further in Chapter 3, Saving for Retirement; the international aspects of saving are discussed in Chapter 6, The U.S. Capital Account Surplus.)

Wealth Effects on Consumption and Saving

A strong rise in household net worth during the late 1990s and again during the past two years coincided with a sizable increase in consumer spending relative to disposable personal income (Chart 1-1). From 1995 through 2000, in large part because of a booming stock market, the wealth-to-income ratio rose well above its historical range, eventually reaching 6.15 years of disposable income, and the fraction of disposable income spent by consumers rose to new heights as well. The wealth-to-income ratio fell sharply in 2001 and 2002 due to the stock market decline. Since its low point in the third quarter of 2002, the wealth-to-income ratio has again risen sharply. By the third quarter of 2005, it had recovered to about 5.6 years of disposable income, well above the historical average of 4.8. Gains in the stock market accounted for about half of the recovery while increases in net housing wealth accounted for another third.

Chart 1-1 **Consumption & Net Worth (Relative to Disposable Personal Income)**
Consumption gains in 2004 and 2005 were partly supported by increases in wealth, with increases in housing and stock market wealth accounting for most of the increase.



Sources: Department of Commerce (Bureau of Economic Analysis), Federal Reserve Board, and Council of Economic Advisers.

Looking ahead, real consumption growth during the four quarters of 2006 is expected to be somewhere around the 3½-percent trend rate measured during the past three years. Over the near term, the personal saving rate is expected to increase. If energy prices decline in 2006, consumer spending should decline relative to income; to the extent that energy prices remain high, consumer spending may still decline relative to income as consumers reduce energy use and substitute energy alternatives.

Housing Prices

During the past five years, home prices have risen at an annual rate of 9.2 percent. This increase was largely supported by two factors: first, an increase in housing demand, driven by a rise in nominal per capita disposable income of 3.4 percent per year; second, a decline in the cost of financing house purchases, due to a drop in the monthly payment on 30-year fixed-rate mortgages of 4.3 percent per year. Housing demand was also boosted by increased household formation and a strengthening job market. Supply constraints, due to limits on the supply of buildable land in some areas, also contributed to rising prices over the past five years. After falling during 2004, mortgage rates were roughly flat at 5¾ percent in the first three quarters of 2005, and then edged up along with other long-term interest rates in the

fourth quarter. As a result, a well known measure of housing affordability has now fallen to about its average level over its 34-year history.

To gauge the extent to which house price increases have reflected fundamentals, some studies compare housing prices to rents. The rent-to-price ratio is a real rate of return on housing assets in the same way that the earnings-to-price ratio measures the real rate of return on corporate stocks. Viewed as an asset, a home should bear a real return similar to the real return available on alternative assets, such as stocks and bonds. As real interest rates have fallen in the United States and in most other Organization for Economic Cooperation and Development (OECD) countries, the rent-to-price ratio for housing has likewise fallen across a broad range of OECD countries. A recent OECD paper concluded that the decline in the rent-to-price ratio in the United States from 2000 through 2004 was roughly consistent with the decline in interest rates over the same period.

Residential Investment

In response to strong demand and the consequent rise in prices, builders began construction on more than 2 million new homes during 2005, one of the highest rates of homebuilding on record. Similarly, residential investment, at 6 percent of GDP in 2005, was at its highest level since 1955. During 2005, growth of residential construction contributed about half a percentage point to real GDP growth. Homebuilding in 2005 was slightly in excess of the pace of about 1.9 million starts per year that some economists have estimated is compatible in the long run with U.S. rates of household formation and other demographic influences.

During the next five years, the Administration expects the pace of homebuilding to decrease gradually because of demographic trends and slowly rising long-term interest rates. A gradual slowing of homebuilding appears more likely than a sharp drop because the elevated level of house prices will sustain homebuilding as a profitable enterprise for some time. On balance, residential investment is not projected to contribute to real GDP growth during the four quarters of 2006; in subsequent years, it is expected to subtract a bit from overall growth.

Business Fixed Investment

Real business investment in equipment and software grew 8 percent during the four quarters of 2005. This growth is down from the 14-percent year-earlier pace, which was boosted by the end-of-2004 termination of the bonus depreciation provisions of the Jobs and Growth Tax Reconciliation Act. Equipment purchases grew rapidly in mining and oilfield machinery (18 percent) in response to higher prices for oil and natural gas and the need

to replace hurricane-damaged rigs in the Gulf of Mexico. Equipment investment also grew rapidly in the high-tech fields of computers, software, and communications equipment. Investment in industrial and construction equipment grew only moderately (6 percent and 4 percent, respectively). Investment in light trucks was strong through the third quarter, but fell back in the fourth.

In contrast to equipment and software, investment in structures was weak, growing only 1 percent during 2005, after 2.8-percent growth in 2004. Strong growth in the construction of hospitals, shopping centers, and mines (including oil and natural gas rigs) has been offset by declines in the building of electrical power stations, hotels and motels, and amusement and recreation facilities. Office construction fell for the fifth year in a row; however, the 2005 decline was smaller than previous years as office occupancy rates have begun to increase.

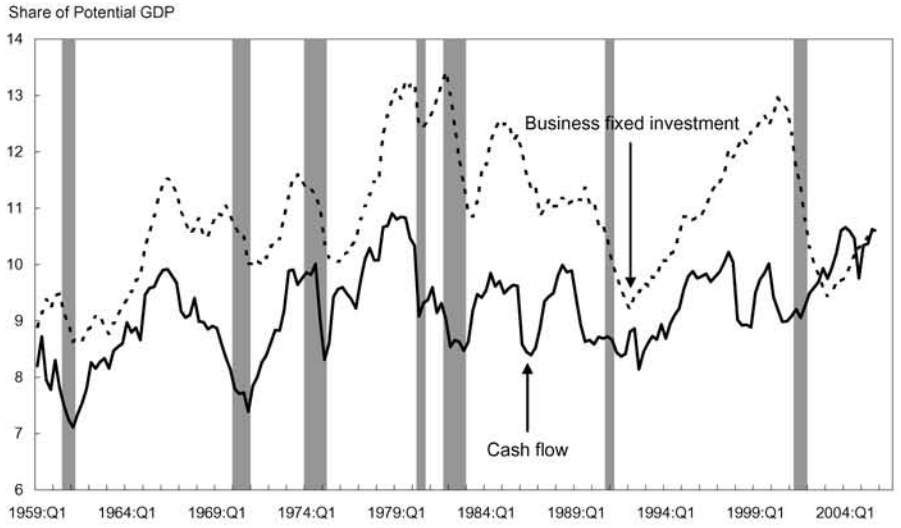
The accumulation of internal funds has been more than sufficient to finance business investment during this expansion (Chart 1-2). These funds, also known as *cash flow*, are the sum of undistributed after-tax profits and depreciation. In general, funds for business investment can be generated through borrowing (typically from the bond market, commercial paper market, or banks), issuing new stock, the drawdown of liquid assets, or tapping into cash flow. Historically, business investment has been about 21 percent higher than cash flow, with firms raising most of the extra funds in credit markets. In contrast, business investment during this expansion has not kept pace with cash flow. As a consequence, corporate liquid assets have now built up to levels that are well above any that have been seen during the past decade and a half. This buildup in liquid assets implies that financing for future investment should be readily available. However, the buildup may reflect greater overall caution among business executives and owners, a shift in sentiment that could dampen future investment.

During the next couple of years, investment in equipment and software is likely to maintain the same rapid growth as in 2005, as output continues to grow and businesses remain flush with cash. Investment in business structures is projected to accelerate as new oil and gas rigs are built and as continued declines in vacancy rates support the construction of new office buildings.

Business Inventories

The pace of inventory investment in 2005 was below the 2004 pace and on average subtracted from overall GDP growth during the first three quarters of the year. As sales grew during the year, the inventory-to-sales ratio continued to decline. Indeed, the inventory-to-sales ratio has fallen considerably since the mid-1980s. In 2005, businesses held inventories equal to about 27 business-days' worth of sales—about three days' worth of sales less than they held in 2000, and about seven days' less than in 1985. The trend toward leaner

Chart 1-2 **Business Fixed Investment and Cash Flow**
Business fixed investment and cash flow tend to move up and down together, although BFI usually exceeds cash flow. During this expansion, in contrast, BFI is not higher than cash flow.



Note: Potential GDP is the level of GDP consistent with full employment. BFI data available through 2005:Q4; cash flow data available through 2005:Q3. Shaded areas indicate recessions.
Sources: Department of Commerce (Bureau of Economic Analysis) and Congressional Budget Office.

inventories has been evident in manufacturing since the mid-1980s, and has appeared in retailing and wholesaling since at least 2000. Leaner inventories suggest that new business practices such as just-in-time inventory control in manufacturing and computer- and Internet-assisted supply-chain management continue to become more popular among supply managers.

Inventory investment generally makes little contribution to real GDP growth when the growth of final sales is roughly stable from year to year. (In contrast, inventory investment *is* important in the early phases of business-cycle recessions and recoveries.) With the economy in the midst of an ongoing expansion, and the Administration expecting fairly smooth growth of final sales during the next several years, inventory investment is not anticipated to be a major contributor to annual GDP growth. The economy-wide inventory-to-sales ratio is expected to trend lower over the projection period.

Government Purchases

Federal Government purchases as well as transfers and grants (such as Social Security, Medicare, and Medicaid) contributed to real GDP growth during 2005. Federal purchases contributed 0.2 percentage point at an annual rate to real GDP growth in the first half of the year, and about 0.5 percentage point in the third quarter. Almost all of these contributions were from the defense budget, largely a by-product of the reconstruction and military operations in

Iraq and Afghanistan. Despite the developments in Iraq and the hurricane-relief efforts, however, Federal spending in fiscal year 2005 (which runs from October 2004 to September 2005) was $7 billion below last year's projection in the FY 2006 budget. An additional $62 billion has been authorized so far for hurricane-disaster relief. Although these funds were authorized in FY 2005, the hurricanes struck near the end of the fiscal year, and so most of the funds will be disbursed in FY 2006 and beyond.

Federal Government purchases and the consumer spending that results indirectly from Federal transfers will add to real GDP growth in early 2006. Federal outlays for FY 2006 are likely to increase largely due to hurricane-disaster relief and because of additional funds for reconstruction and counterinsurgency in Iraq.

From FY 2007 forward, however, the impact of Federal outlays is projected to move sharply toward restraint. For example, Federal outlays are projected to shrink by 0.7 percentage point of GDP in FY 2007. The shrinking of the Federal Government's claim on resources should allow private economic activity more room to grow.

Exports and Imports

Real exports grew 5¾ percent during the four quarters of 2005, about the same as export growth in 2004. This reflects the interaction of two offsetting influences: the somewhat faster growth of our trading partners in 2005, which tends to increase the demand for U.S. exports, and the increase in the exchange value of the dollar, which tends to dampen export demand by making U.S. goods relatively more expensive. Real GDP growth among our OECD trading partners picked up a bit to 2.6 percent during the four quarters of 2005 from a 2.1-percent pace in 2004, as computed from the latest OECD projections. Offsetting the effect of stronger foreign growth on our exports was a 7-percent rise in the value of the dollar against major currencies over the 12 months of 2005.

Data on the destination of U.S. exports show the fastest export growth to the most rapidly developing countries and regions such as Asia and Africa. Nevertheless, our OECD trading partners still account for more than two-thirds of our exports.

Growth of our real exports in 2006 and 2007 is likely to be similar to that in 2005, because economic growth in our export markets is likely to be about the same as in 2005. The OECD projects that real GDP growth among our OECD trading partners (2.6 percent during the four quarters of 2005) will be 2.5 percent and 2.8 percent in 2006 and 2007, respectively. Growth of real exports to rapidly developing countries in Asia and Africa will likely continue to be healthy over the next two years as their economic expansion leads them to demand more goods and services from abroad.

Growth in real imports slowed substantially during the four quarters of 2005 to 4.6 percent from 10.6 percent in 2004. Imports grew more slowly than exports during 2005. Import growth was particularly weak in the second and third quarters and was fairly widespread, affecting imports of consumer goods, non-auto capital goods, petroleum products, and services. Imports picked up in the fourth quarter, particularly for petroleum products to replace domestic production lost because of the damage caused by the hurricanes.

The current account deficit (the excess of imports and income flows to foreigners over exports and foreign income of Americans) averaged 6.4 percent of GDP ($790 billion at an annual rate) during the first three quarters of 2005, up from 5.7 percent of GDP during 2004. Recent increases in the deficit reflect faster growth in the United States than among our trading partners, making our imports grow faster than our exports. The longer-term trend also reflects faster growth of domestic investment than domestic saving with foreign saving filling in the gap in financing.

The United States has been able to buy more goods and services than it sells because foreigners have been investing in the United States. The current account deficit of $790 billion also represents the net increase in foreign holdings of U.S. assets (either financial assets or direct ownership of corporations) relative to U.S.-owned assets abroad. In the future, the returns from these foreign-owned U.S. investments (that is, interest, dividends, and reinvested earnings) will themselves add to the current account deficit. These ideas are explored more fully in Chapter 6, The U.S. Capital Account Surplus.

Employment

Nonfarm payroll employment increased by 2.0 million during the 12 months of 2005, an average pace of 168,000 jobs per month. The unemployment rate declined by 0.5 percentage point to 4.9 percent during the 12 months of the year. The average unemployment rate in 2005 (5.1 percent) was below the averages of the 1970s, the 1980s, and the 1990s. During the first eight months of 2005, employment growth averaged 196,000 per month, but dropped to only 21,000 per month in September and October immediately after the hurricanes. The Bureau of Labor Statistics expects a slight downward revision to employment growth over the 12 months ended in March 2005.

Job gains were spread broadly across major industry sectors in 2005. The service-providing sector accounted for 88 percent of job growth during the 12 months of the year, a slightly larger contribution than would be suggested by its 83 percent of overall employment. The goods-producing sector accounted for the remaining 12 percent of the gains, notably weaker than its 17-percent share of overall employment. Within the goods-producing sector, over-the-year employment growth was concentrated in construction and

mining, while manufacturing employment decreased for the seventh time in the past eight years.

By educational attainment, the drop in the unemployment rate during 2005 was most pronounced among those without a high school degree; the jobless rate in this group tumbled 0.7 percentage point during the 12 months of the year. By race and ethnicity, the unemployment rate fell the most among blacks and Hispanics, (1.5 and 0.5 percentage points, respectively), in contrast to 0.3 percentage point for whites. By age, the jobless rate fell most among teenagers 16 to 19 years old. By sex, the jobless rate fell more among adult men than adult women. The median duration of unemployment, an indicator that typically follows the business cycle with a substantial lag, declined from 9.4 weeks in December 2004 to 8.5 weeks in December 2005. In general, unemployment rates fell the most in 2005 among those groups with the highest rates at the end of 2004.

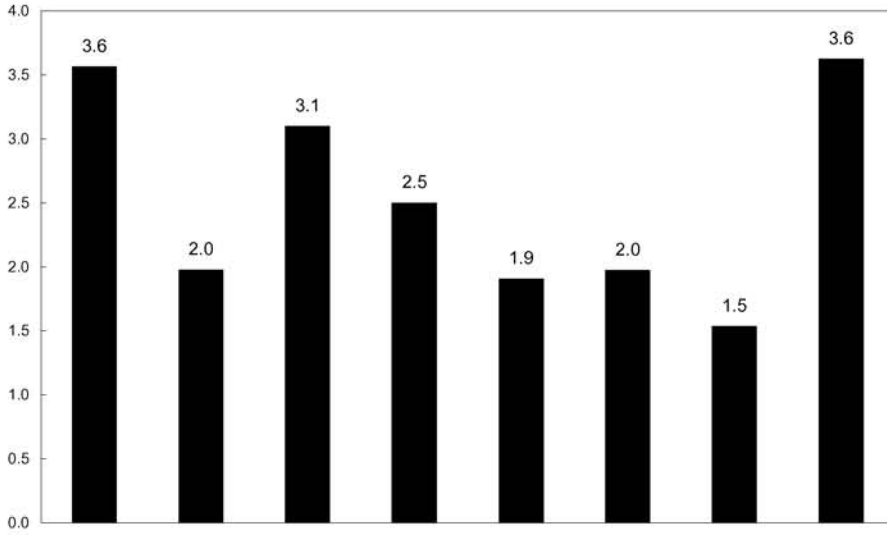
The Administration projects that employment will increase at a pace of 176,000 per month on average during the 12 months of 2006—roughly in line with the Philadelphia Federal Reserve Bank's survey of professional forecasters. The Administration projects the unemployment rate will remain at about 5.0 percent throughout 2006.

Productivity

Labor productivity growth in the nonfarm business sector has been exceptionally vigorous, exceeding the forecasts of most economists. Productivity (real output per hour worked) grew at a 3.4-percent annual rate during the first three quarters of 2005, following similar or higher growth rates during the three preceding years. Since the business-cycle peak in the first quarter of 2001 (a period that includes a recession and a recovery), productivity has grown at an average 3.6-percent annual rate, notably higher than during any comparable 4½-year period since 1948 (Chart 1-3). Although 1995 has been regarded as a watershed year for productivity because of the acceleration of productivity from a 1.5-percent to a 2.4-percent annual rate of growth, the further acceleration to a 3.6-percent annual rate of growth during 2001 to 2005 is even more striking (the precise time periods are shown in Table 1-2, later in this chapter). The 1995-2001 acceleration may be plausibly accounted for by a pickup in capital services per hour worked and by increases in *organizational capital*, the investments businesses make to reorganize and restructure themselves, in this instance in response to newly installed information technology.

In contrast, capital deepening (the increase in capital services per hour worked) does not explain any of the post-2001 increase in productivity; in fact, the growth of capital services per hour worked appears to have fallen off slightly in this period. The post-2001 acceleration in productivity, therefore,

Chart 1-3 **Productivity Growth During Cyclically-Comparable Business Cycle Intervals**
Productivity growth during the first 4½ years since the 2001:Q1 business-cycle peak is as high or higher than during any cyclically-comparable period during the postwar era.
Percent change, annual rate during the 4 ½ years beginning wth each business-cycle peak



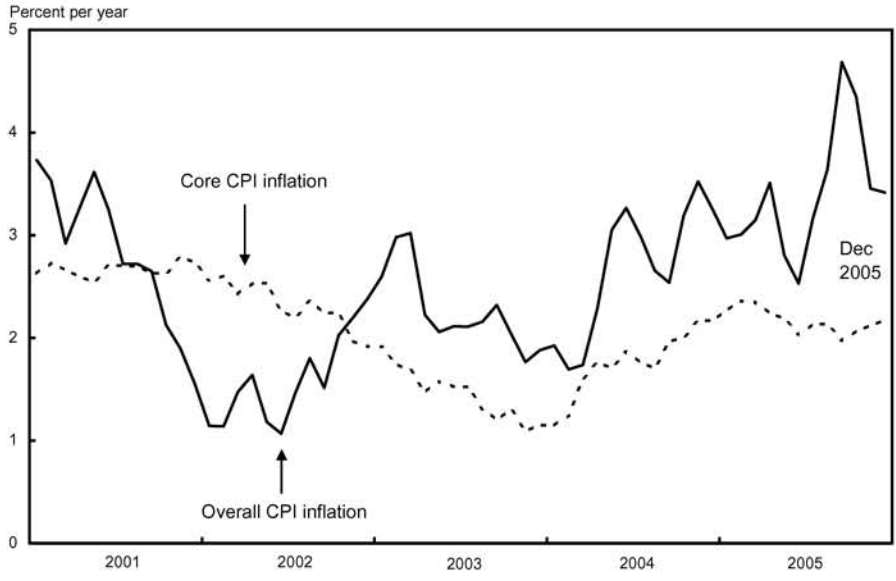
Sources: Department of Labor (Bureau of Labor Statistics) and National Bureau of Economic Research.

appears to be accounted for by factors that are more difficult to measure than the quantity of capital, such as continuing improvements in technology and in business practices.

One curious aspect of productivity acceleration has been its limited spread. Business-sector productivity growth has been higher in the United States than in any other major industrial economy. (Business-sector productivity growth has also been rapid in Ireland, Greece, Korea, Turkey, the Scandinavian countries, and several transitional east-European countries.) As every industrial economy has access to the same technology, the strong U.S. performance suggests that other structural features of the U.S. economy may also play an important role in productivity growth. Some research suggests that, all else equal, countries with more-flexible, less-heavily regulated product and labor markets are better able to translate technological advances into productivity gains.

Rather than assume that the recent remarkable pace of productivity growth will continue, the Administration believes it is prudent to build a budget based on a forecast somewhat lower than the 3.6-percent pace of productivity growth since 2001. Productivity is projected to average 2.6 percent per year during the six-year span of the budget projection—roughly equal to the average annual pace during the past decade.

Chart 1-4 **Inflation**
Core CPI inflation (which excludes food and energy) has remained moderate and stable in the face of the recent uptick in overall CPI inflation.



Source: Department of Labor (Bureau of Labor Statistics).

Wages and Prices

As measured by the Consumer Price Index (CPI), overall inflation increased in 2005 to 3.4 percent from 3.3 percent during the 12 months of 2004. Rapid increases in energy prices (16.6 percent and 17.1 percent in 2004 and 2005, respectively) elevated the level of overall inflation in both years. The four major energy subindexes (gasoline, fuel oil, natural gas, and electricity) all posted large increases in 2005, with prices of natural gas and electricity advancing faster than in the preceding year. Food price inflation, at 2.3 percent, was moderate and little changed from the year-earlier pace. Core CPI prices (which exclude the prices of food and energy) increased 2.2 percent during 2005, substantially below the overall inflation rate and the same as the year-earlier pace.

Labor costs (which comprise about 62 percent of the costs of nonfarm business) have been stable, or possibly trending lower. Hourly compensation for workers in private industry increased at a 3.0-percent annual rate during the 12 months ended in September 2005 down from 3.7 percent during the year-earlier period according to the Employment Cost Index (ECI), which is compiled from the National Compensation Survey (NCS). The deceleration occurred in both wages and salaries (with growth down to 2.2 percent from 2.6 percent in the year-earlier period) and hourly benefits (which slowed to 4.8 percent from 6.8 percent). The slowing in hourly benefits was accounted for primarily by smaller increases in contributions to defined-benefit pension

programs in 2005 than in 2004 according to other tabulations from the NCS. Hourly benefits have increased notably faster than hourly wages and salaries in each of the past four years. Another measure of hourly compensation published by the Department of Labor and derived from the national income and product accounts (NIPA) has increased notably faster than the ECI measure, rising 5.0 percent during the four quarters ended in the third quarter of 2005. The difference between these two measures may be partly attributable to the exercise of stock options which are included in the NIPA-derived measure at the time they are exercised, but are not recorded by the NCS.

With hourly compensation growing in the 3.0 percent-to-5.0 percent range (depending on the index) and labor productivity growth at about 3.0 percent, trend unit labor costs have barely changed, with increases in the range from 0 percent to 2 percent. Because unit labor costs have increased by less than the 2.9-percent increase in the GDP price index during the four quarters through the third quarter of 2005, labor costs do not appear to be putting upward pressure on inflation.

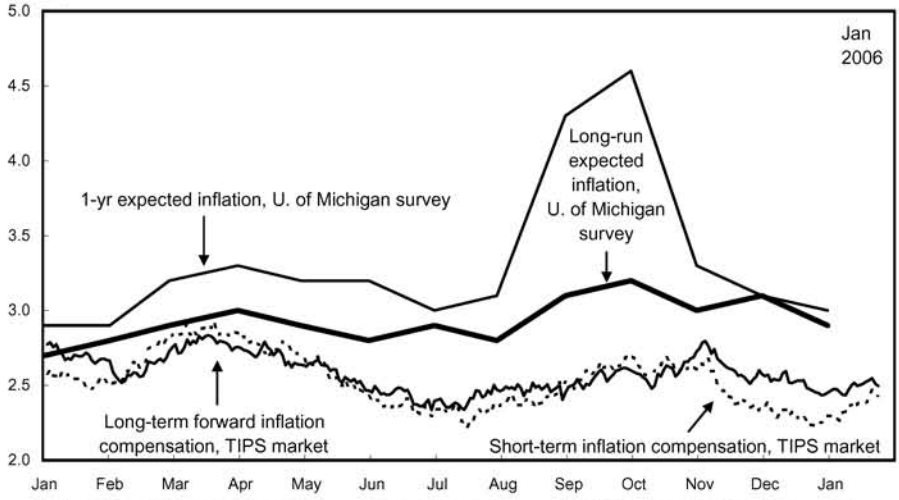
An important determinant of inflation during the next year is likely to be energy prices, whose run-up during the past two years has been the main reason for the increase in inflation. Futures markets suggest roughly stable oil and natural gas prices, which (if they come to pass) will remove some of the upward pressure on the overall inflation rate.

Although some measures of short-run inflation expectations increased around the third quarter of 2005, they fell back later in the year. More importantly, a variety of longer-term measures of inflation expectations have been approximately stable during the past two years, including those derived from the market for Treasury Inflation-Protected Securities (TIPS) and the University of Michigan consumer survey (Chart 1-5). History suggests that the stability of inflation expectations promotes stability in actual inflation as well as in the overall economy.

The Administration expects CPI inflation to stabilize at 2.4 percent during the next several years, up only slightly from the 2.2 percent increase in the core CPI during the 12 months through December. The projected path of inflation as measured by the GDP price index is similar, but a bit lower. Inflation by this measure is projected at 2.2 percent during the four quarters of 2006 and 2007, down from the 3.0-percent increase during 2005. These inflation projections are very close to those of a year ago, and are also very close to those of the consensus of professional forecasters.

The "wedge," or difference, between the CPI and the GDP measures of inflation has implications for the Federal budget projections. A larger wedge (with the CPI rising faster than the GDP price index) raises the Federal budget deficit because cost-of-living programs rise with the CPI, while Federal revenue tends to increase with the GDP price index. For a given level

Chart 1-5 **Survey and Market Measures of Expected Inflation in 2005 and 2006**
Although 1-year consumer expectations spiked around October, consumers' long-term expectations and expectations derived from the TIPS market remained moderate and stable.



Note: TIPS market inflation is measured over the short-term as the expected inflation during the 0- to-5 year period, and long-term forward inflation is measured from 5 years out to 10 years out. The long-term University of Michigan expectation is from 0 to 5-10 years out.
Sources: Federal Reserve and University of Michigan survey of consumer sentiment.

of nominal income, increases in the CPI also cut Federal revenue because they raise income tax brackets and affect other inflation-indexed features of the tax code. Of the two indexes, the CPI tends to increase faster in part because it measures the price of a fixed basket of goods. In contrast, the GDP price index increases less rapidly because it allows for households and businesses shifting their purchases away from items with increasing relative prices and toward items with decreasing relative prices. Among other differences, the GDP price index places a larger weight than does the CPI on computers, which tend to decline in price (on a quality-adjusted basis). In addition, the CPI places a much larger weight on energy.

During the 13 years ended in 2004, the wedge between inflation in the CPI-U-RS (a historical CPI series designed to be consistent with current CPI methods) and the rate of change in the GDP price index averaged 0.36 percent per year. The wedge was particularly high during the first three quarters of 2005 when the CPI increased 1 percentage point faster than the GDP price index; this difference reflected the roughly 50-percent annual rate of increase in crude oil prices, which have a larger weight in consumer prices than in GDP as a whole. Since domestic production accounts for only about 35 percent of U.S. oil consumption, the weight of oil prices in GDP is roughly one-third of its weight in consumption. As this boost from higher oil prices unwinds over the next couple of years, the wedge between the CPI and GDP

inflation is likely to be lower than average. From 2008, the wedge is projected to average 0.3 percentage point.

Financial Markets

The Wilshire 5000 (a broad stock price index) increased 4.6 percent during 2005, the third consecutive year of stock market gains following three years of declines. The 2005 increase was well below the gains of the two preceding years.

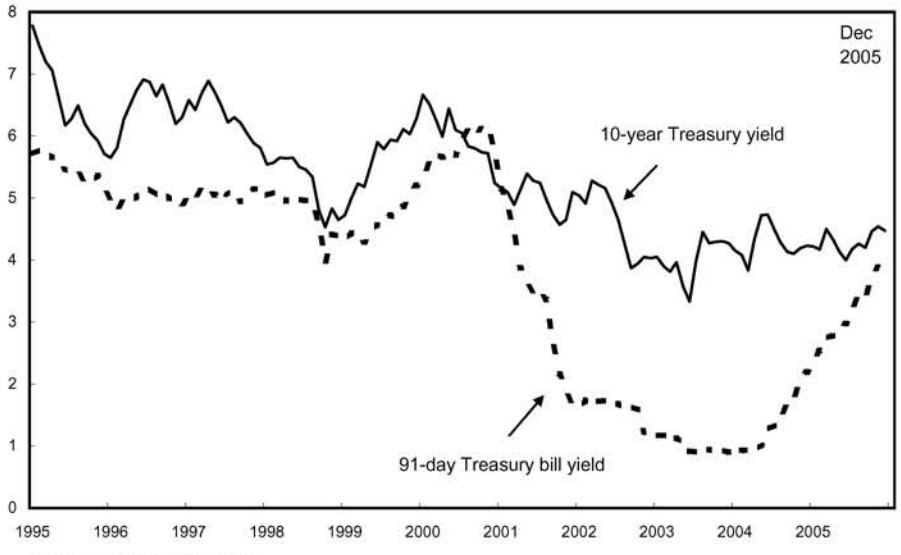
Short-term interest rates increased during the year as the Federal Reserve's Open Market Committee raised the target Federal funds rate by 25 basis points at each of its eight meetings. As a consequence, rates on 91-day Treasury bills rose 1.7 percentage points during the year.

Despite the increases in short-term rates, yields on 10-year Treasury notes remained low, increasing only 24 basis points during the 12 months of 2005 (Chart 1-6). The low level of long-term interest rates was due, in part, to low and stable long-run inflation expectations. At the end of 2005 the gap between the yield on 10-year Treasuries and the rate on 91-day Treasury bills was only about 0.6 percentage point, noticeably lower than its historical average. (The yield on longer-term Treasury notes is usually higher than on shorter-term notes because the market compensates investors for the extra risk of holding longer-term securities.)

Chart 1-6 **10-Year Treasury Yield**

Yields on 10-year Treasury notes remained near decade lows during 2005 in the face of sharp increases in short-term rates.

Percent per annum



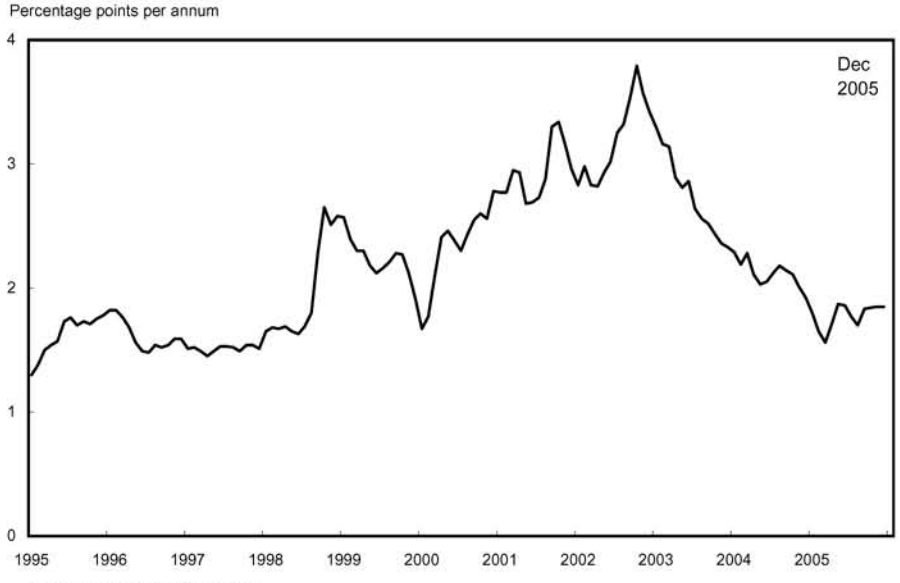
Source: Federal Reserve Board.

Yields on corporate bonds also remained low and the spread between yields on corporate bonds (which carry more risk) and the yields on more-secure obligations of the U.S. Treasury remained small. Measured relative to Treasury obligations of similar maturities, the yields on corporate bonds rated "BAA" (about average quality) by Moody's Investor Services remained near their lowest levels over the past decade (Chart 1-7). This suggests that the perceived default risk of U.S. corporations remains low.

The Long-Term Outlook Through 2011

The U.S. economy continues to be well positioned for long-term growth. The Administration projects that real GDP will expand at about its potential rate (between 3.1 percent and 3.3 percent per year) through 2011, inflation will remain low and stable (with the CPI increasing at around 2.4 percent per year), and the labor market will remain firm (Table 1-1). The forecast is based on conservative economic assumptions that are close to the consensus of professional forecasters. These assumptions provide a prudent and cautious basis for the Administration's budget projections.

Chart 1-7 **Corporate Bond Yield Spreads**
In 2005, the spread between the yield on average quality (Baa-rated) corporate securities and Treasury notes were at the low end of the past decade's range.



Source: Federal Reserve Board.

TABLE 1-1.—*Administration Forecast*[1]

Year	Nominal GDP	Real GDP (chain-type)	GDP price index (chain-type)	Consumer price index (CPI-U)	Unemployment rate (percent)	Interest rate, 91-day Treasury bills[2] (percent)	Interest rate, 10-year Treasury notes (percent)	Nonfarm payroll employment (millions)	Nonfarm payroll employment (average monthly change, Q4-to-Q4 thousands)
	Percent change, Q4-to-Q4				Level, calendar year				
2004 (actual)...	6.8	3.8	2.9	3.4	5.5	1.4	4.3	131.5	178
2005	6.4	3.5	2.8	3.8	5.1	3.2	4.3	133.6	160
2006	5.6	3.4	2.2	2.4	5.0	4.2	5.0	135.5	176
2007	5.6	3.3	2.2	2.4	5.0	4.2	5.3	137.4	140
2008	5.4	3.2	2.1	2.4	5.0	4.3	5.5	139.0	139
2009	5.3	3.1	2.1	2.4	5.0	4.3	5.6	140.7	132
2010	5.3	3.1	2.1	2.4	5.0	4.3	5.6	142.2	127
2011	5.3	3.1	2.2	2.5	5.0	4.3	5.6	143.7	126

[1] Based on data available as of November 15, 2005.

[2] Discount basis.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), Department of the Treasury, and Office of Management and Budget.

Growth in GDP over the Long Term

The Administration projects that real GDP will grow at a slowly diminishing rate from 2005 through 2009, decelerating year by year from a forecasted 3.5-percent rate during the four quarters of 2005 to 3.1 percent in 2009, roughly in line with the consensus forecast for those years. The year-by-year pace is close to the estimated growth rate of potential real GDP growth (a measure of the rate of growth of productive capacity). The unemployment rate is projected to remain flat at 5.0 percent. As discussed below, potential GDP growth is expected to slow in the near term as productivity growth reverts toward its long-run trend, and potential GDP is expected to slow further during the 2007-to-2011 period as labor force growth declines.

The projected growth of potential real GDP, 3¼ percent during the next two years, is in line with recent experience. Potential growth is the rate of real GDP growth that can be achieved while the unemployment rate remains stable. For example, during the past four years (from the third quarter of 2001 to the third quarter of 2005) real GDP growth was 3.22 percent at an annual rate while the unemployment rate was unchanged—on net—at about 5 percent.

The growth rate of the economy over the long run is determined by its supply-side components, which include population, labor force participation, the ratio of nonfarm business employment to household employment, the workweek, and the growth in output per hour. The Administration's forecast for the contribution of the growth rates of different supply-side factors to real GDP growth is shown in Table 1-2.

As can be seen in the fourth column of the table, the mix of supply-side factors determining real GDP growth has been unusual since the business-cycle peak at the beginning of 2001, with the exceptionally high productivity growth (3.6 percent at an annual rate) partially offset by declines in the participation rate (line 2) and the workweek (line 8). Also puzzling is the large decline in the ratio of nonfarm business employment to household employment (line 6). This unusual decline reflects the slow growth of employment

TABLE 1-2.— *Supply-Side Components of Real GDP Growth, 1953–2011*

[Average annual percent change]

Item	1953 Q2 to 1973 Q4	1973 Q4 to 1995 Q2	1995 Q2 to 2001 Q1	2001 Q1 to 2005 Q3	2005 Q3 to 2011 Q4
1) Civilian noninstitutional population aged 16+[1]	1.6	1.4	1.2	1.2	1.1
2) Plus: Civilian labor force participation rate	0.2	0.4	0.1	-0.3	-0.1
3) Equals: Civilian labor force[2]	1.8	1.8	1.4	0.9	1.0
4) Plus: Civilian employment rate	-0.1	0.0	0.3	-0.2	0.0
5) Equals: Civilian employment[2]	1.7	1.8	1.7	0.7	1.0
6) Plus: Nonfarm business employment as a share of civilian employment[2 3]	-0.1	0.1	0.4	-0.8	0.1
7) Equals: Nonfarm business employment	1.6	1.9	2.0	-0.1	1.0
8) Plus: Average weekly hours (nonfarm business)	-0.3	-0.3	-0.1	-0.3	-0.1
9) Equals: Hours of all persons (nonfarm business)	1.3	1.6	1.9	-0.4	1.0
10) Plus: Output per hour (productivity, nonfarm business)	2.5	1.5	2.4	3.6	2.6
11) Equals: Nonfarm business output	3.8	3.1	4.3	3.2	3.6
12) Plus: Ratio of real GDP to nonfarm business output[4]	-0.2	-0.2	-0.5	-0.4	-0.4
13) Equals: Real GDP	3.6	2.8	3.8	2.8	3.2

[1] Adjusted by CEA to smooth discontinuities in the population series since 1990.

[2] BLS research series adjusted to smooth irregularities in the population series since 1990.

[3] Line 6 translates the civilian employment growth rate into the nonfarm business employment growth rate.

[4] Line 12 translates nonfarm business output back into output for all sectors (GDP), which includes the output of farms and general government.

Note: 1953 Q2, 1973 Q4, and 2001 Q1 are NBER business-cycle peaks. Detail may not add to total because of rounding.

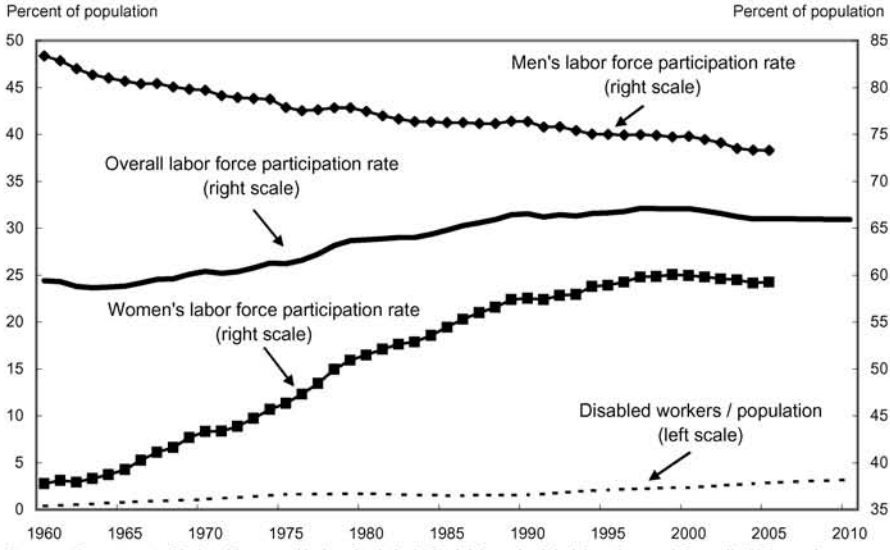
Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), and Department of Labor (Bureau of Labor Statistics).

as measured by the payroll survey (which asks employers to report the number of employees) relative to the more-rapid growth of employment as measured by the household survey (in which people report the employment status of their household members)—a disparity that has not yet been explained.

The participation rate fell from 2001 to 2005, and is projected to trend lower through 2011. The recent behavior stands in contrast to the long period of increase from 1960 through 1996 (Chart 1-8). The participation rate appears to have topped out in 1997-2000 before declining. The reversal of direction reflects nothing new about the participation rate for men, which continued a downward trend that began shortly after the end of World War II. Rather, the new factor at play is the change in the trend in the female participation rate, which has edged down on balance since 2000 after having risen for five decades.

Another factor in the decline in the labor force participation rate has been the increase in the number of workers collecting insurance for disability retirement. The 0.5-percentage point increase (as a share of the working-age population) since 2000 accounts for about half of the overall decline, and appears to be largely a reflection of increases in the number of workers entering high-disability ages (50+ years old).

Chart 1-8 **Labor Force Participation Rate and Disabled Workers Relative to Population**
Female particpation rates have peaked, while men's rates continue downward. Increases in disability account for some of the recent decline in the overall participation rate.



Sources: Department of Labor (Bureau of Labor Statistics), Social Security Administration, and Council of Economic Advisers.

Looking ahead, the participation rate is projected to decline slowly, reflecting the aging of the baby-boom cohorts, leading to more retirements and a likely increase in the share of disabled workers. Baby boomers are currently in their forties and fifties, and over the next several years they will move into older age brackets which typically have lower participation rates. The decline in the participation rate may quicken after 2008 when the first baby-boom cohort reaches Social Security's early retirement age of 62.

Interest Rates over the Near and Long Term

The Administration forecast of interest rates is based on financial market data as well as results of a survey of economic forecasters. As of November 15, 2005, the date that the forecast was finalized, trading in financial futures suggested that market participants expected short-term interest rates to rise a bit further, and the Administration's interest-rate projections reflect those views. Taking its cue from financial futures markets, the Administration projects the rate on 91-day Treasury bills to increase to about 4.2 percent by 2007 and to about 4.3 percent from 2008 to 2011. At that level, the real interest rate on 91-day Treasury bills will be close to its historical average.

The yield on 10-year Treasury notes on November 14 was 4.61 percent, just 68 basis points above the (discount) rate on 91-day Treasury bills. This difference was very low relative to its historical average, and the Administration expects it to increase gradually during the six-year forecast period. As a result, yields on 10-year notes are expected to increase somewhat further, reaching a plateau at 5.6 percent from 2009 onward.

The Composition of Income over the Long Term

A primary purpose of the Administration's economic forecast is to estimate future government revenues, which requires a projection of the components of taxable income. The Administration's income-side projection is based on the historical stability of the long-run labor compensation and capital share of gross domestic income (GDI). (GDI is the sum of all income components and differs from GDP only by measurement error—which can be substantial.) During the first three quarters of 2005, the labor compensation share of GDI was 57.6 percent (according to the advance data available when the projection was finalized), slightly below its 1963-2004 average of 58.1 percent. From this jump-off point, the labor share is projected to slowly rise to 58.1 percent by 2011.

The labor compensation share of GDI consists of wages and salaries (which are taxable), nonwage compensation (employer contributions to employee pension and insurance funds—which are not taxable), and employer contributions to social insurance (which are not taxable). The Administration

forecasts that the wage and salary share of compensation will be roughly stable during the budget window. One of the main factors boosting nonwage compensation during 2002-2004 was employer contributions to defined-benefit pension plans. As noted earlier, the National Compensation Survey for 2005 shows a moderation of these contributions, suggesting that the period of very rapid catch-up contributions may be behind us.

The capital share of GDI is expected to edge down from its currently high level before stabilizing near its historical average. Within the capital share, depreciation is expected to increase (a result of the strong growth of investment during the past three years). After adjusting for the temporary effects of the hurricanes, profits in the third quarter of 2005 were about 11.6 percent of GDI, well above their post-1959 average.

Book profits (known in the national income and product accounts as "profits before tax") jumped up in the first quarter of 2005 in large part because of the termination of the temporary provision for expensing of equipment investment under the Job Creation and Worker Assistance Act of 2002 and the Jobs and Growth Tax Relief and Reconciliation Act of 2003. These expensing provisions reduced taxable profits from the third quarter of 2001 through the fourth quarter of 2004. The legacy of these expensing provisions increases book profits from 2005 forward, however, because investment goods expensed during the three-year expensing window will have less remaining value to depreciate. The share of other taxable income (the sum of rent, dividends, proprietors' income, and personal interest income) is projected to fall in coming years, mainly because of the delayed effects of past declines in long-term interest rates, which reduce personal interest income during the projection period. In addition, rental income has been—and is projected to continue—trending down as a share of GDI.

Conclusion

The economy has shifted from recovery to sustained expansion, having absorbed the effects of the third-quarter hurricanes and large increases in energy prices. The economy is projected to settle into a steady state in which GDP grows at its potential rate, the unemployment rate remains flat at a low level, and inflation remains moderate and stable. Consumer spending remains strong, businesses are continuing to invest, and exports are growing faster than domestic production. Having said this, we must remember that economic forecasting is difficult, and no doubt unforeseen positive and negative developments will affect the course of the economy over the next few years. Given the economy's fundamental strengths, however, prospects remain good for continued growth in the years ahead. Nevertheless, much work

remains in making our economy as productive as possible. Later chapters of this *Report* explore how pro-growth policies, such as improving incentives in health care, promoting free trade, reforming our retirement and tax systems, and boosting the skills of the U.S. workforce can enhance our economic performance.